STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION X
ID# 3957

Yakima Agricultural Research Lab, United States Department of Agriculture

Yakima, WA

(Signed September 8, 1989)

Facility/Unit Type:	Agricultural research laboratory
Contaminants:	Pesticides
Media:	Soil
Remedy:	Source removal and excavation

FACILITY DESCRIPTION

In September of 1987, EPA issued a NOV to Yakima Agricultural Research Lab (YARL) requiring ground-water well installation, ground-water sampling, and submittal of a revised closure plan for a septic and drainfield system. The site was proposed for the NPL in December 1982 and finalized on September 8, 1983.

The YARL, originally an orchard, has been in operation since 1961. The primary activity at the laboratory involves the development of insect control technologies that benefit fruit and vegetable agriculture in the Pacific Northwest. Records indicate that various pesticides, including persistent organochlorine pesticides such as DDT, Dieldrin, and Lindane, were used on site. Complete records indicating names and quantities of chemicals disposed of are not available.

Dilute waste pesticide compounds were discharged to a modified septic and drainfield system from 1965 to 1985. Approximately 5,000 gallons of rinsate from equipment cleaning operations and less than 250 gallons of residual pesticide solutions were discharged into the system annually during that time period. Prior to 1965, wastes were disposed of directly on the ground.

Seven ground-water monitoring wells were installed around the septic tank unit. Following installation of these wells, the septic tank and washdown pad were removed. Quarterly sampling in 1990 and 1991 indicate that the level of ground-water contamination is below regulatory thresholds. The levels of residual contaminants were below the Maximum Contaminant Levels (MCL) codified in the Model Toxic Controls Act Cleanup Regulation, WAC 173-340-270(2) and in 40 CFR §141.11 and 40 CFR §141.12.

Ground water is found 40 feet below the ground surface, and flows to the south-southeast. This shallow aquifer is underlain by a confined aquifer. City water is pumped from the Naches river, located 2-3 miles north of the site. Private wells completed in the shallow aquifer are located downgradient of the site. Three shallow domestic wells are less than 1 mile from the site. Areas surrounding the site are zoned residential, local small business, and planned development.

EXPOSURE PATHWAYS

The potential for human exposure via contact with contaminated soils has been eliminated through excavation of contaminated soil. Ground water presents minimal risk to humans because contaminants, when present, are below cleanup levels. Air and surface water do not present exposure pathways at the site.

SELECTED REMEDY

The septic tank and washdown pad were removed. Approximately 40 cubic yards of con-

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration (ppb)	Action Level	Cleanup Goal* (ppm)	Point of Compliance
soil	40 cubic yards	2,4,D	ND		850	Not given
		Chlorpyrifos	ND		255	
		DDT	8,500		0.830	
		Dieldrin	560		0.440	
		Disulfoton	12,000		3	
		Endosulfan (I and II)	3,010		4	
		Endrin	ND		20	
		Heptachlor	1.5		0.2	
		Heptachlor Epoxide	ND		0.080	
		Hexachlorocyclohexane	ND		0.5	
		Lindane	ND		25.5	

* Soil cleanup levels were calculated using reference doses (RfDs) and Carcinogenic Potency Factors (CPFs) which were obtained from EPA's Reference Dose Tracking System, August 1989, and EPA's Integrated Risk Information System (IRIS).

taminated soil containing pesticides above the cleanup levels were removed from the former tank/pad area and disposed of at a permitted hazardous waste TSD facility.

INNOVATIVE TECHNOLOGIES CONSIDERED

None.

PUBLIC PARTICIPATION

The public comment period began on August 24, 1992, and closed on September 22, 1992. A public hearing was held on September 10, 1992. No comments were received from the public during either the comment period or the public hearing.

NEXT STEPS

Regulated units at the facility were clean-closed, all other contaminated areas were remedied to risk-based levels, and no further action is required. The site was removed from the NPL on September 1, 1993.

KEY WORDS
soil; ingestion; pesticides; excavation; off-site disposal

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